OBJECTIVES: An increase of financial risk in healthcare is associated with many issues such as poor quality of hospital care, bureaucratic management methods used in state hospitals, low remuneration of health professionals, financing based on not real costs of services and almost absence of procurement activities in hospitals. The aim of the study was to estimate outpatient and inpatient care costs in provincial general hospitals. **METHODS:** We were using top down cost estimation method. Total eight provincial hospitals participated in the study. **RESULTS:** Generally, 51 percent of the total costs was spent for inpatient medical care, 11 percent was spent on outpatient care, 5 percent was spent on emergency care, 18 percent was spent for additional services and 18 percent were for management costs. In Umnugobi provincial general hospital there were 455 outpatients per employee, whereas 200 outpatients per employee were in Dornod provincial general hospital. There were 34 and 17 inpatients per employee at Khovd provincial general hospital and Tov provincial general hospital respectively whereas the average was 27. Day surgery costs were the highest, 248.583 MNT, and the lowest costs were for eye outpatient, 7270 MNT. The highest costs were average emergency care cost, 2 028 966 MNT, and tuberculosis treatment costs, 1 895 340 MNT. Average cost of inpatient care was 574 236 MNT. **CONCLUSIONS:** In average only 11 percent of hospital budget was spent on emergency care, which was insufficient. Umnugobi provincial general hospital employees had by 44.3 percent higher workload compared to Dornod provincial general hospital employees. Khovd Diagnostic and Treatment Regional Centre Hospital's inpatient workload per employee was 50 percent higher compare to Tov provincial general hospital.

PHS133

MEDICAL RESOURCE UTILIZATION OF ISCHEMIC STROKE PATIENTS WITH READMISSION: A RETROSPECTIVE ANALYSIS OF HOSPITALIZATION DATA FROM BEIJING MEDICAL INSURANCE DATABASE

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OBJECTIVES: To describe and compare the first hospitalization cost and the readmission cost of Ischemic Stroke (IS) patients at Beijing urban area. **METHODS:** Retrospective data on hospitalization of IS was selected from Beijing urban employees and residents medical insurance database. We randomly selected 10% of patients first diagnosed as IS during January 2012- December, 2012and then followed those patients to September 2013. 4504 patients were identified in our study and then 2371 patients reoccurred during the observation period. All information of patient demographic characters, length of stay and clinical costs were collected. The descriptive statistics were used in the data analysis. The costs of 2013 were converted into 2012 year price with discount rate 3.5%. **RESULTS:** We analyzed the 2371 patients with recurrence of IS,(mean age 69.482±13.68 years; 64.78% male), among which 1448 patients(61%) were readmitted to hospital over three times. The median followed time was 15.6 months (IQR12.37-18.6, mean15.86±3.69). The median hospitalization cost was 13794.16 (IQR9659.26-20529.71, mean 19933.24±23253.07)at the first time, 13710 (IQR9580.68-20907.06, mean 19682.76±23163.26) at the second time, and 13977.03 (IQR 9831.29- 21631.75, mean 19893.81±21848.2)at the third time or more, respectively(P<0.05). The median length of stay was 15 days (IQR 11-21, mean 17.89±12.73) in the first hospitalization, 15 days (IQR 11-22, mean 18.18±12.64) in the second hospitalization and 15 days(IQR11-23,mean 18.82±13.15) in the third hospitalization or more, respectively(p<0.05). **CONCLUSIONS:** Patients with readmission took a high percentage of all hospitalized IS patients and caused heavy hospitalization cost. Hospitalizations of the second time had shorter length of stay than those at the first hospitalization and the third or more, total hospitalization cost of different admissions showed no significant difference.

PHS134

THE MARKET FOR HEPATITIS C SERVICES IN ALBERTA

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OBJECTIVES: Hepatitis C (HCV) is a curable disease that affects roughly 242,000 Canadians and 24,000 Albertans. Without treatment, those infected may develop cirrhosis, hepatocellular cancer (HCC) and irreversible decompensated cirrhosis (DCC). This study examines the current Alberta "market" for HCV-related services. Little is currently known about the segmentation of providers within this market or the degree to which these segments of providers are integrated into the overall HCV services market. The expenditure required to fund various HCV service segments is also unknown. **METHODS:** We conducted a costing analysis to estimate the expenditure required to fund the current HCV services market and its various segments in Alberta. In order to conduct this analysis, it was necessary to describe the current market associated with different segments of care for HCV. Information was obtained from the literature and through consultation with health care professionals involved in providing HCV-related services. **RESULTS:** Six segments were identified within the overall HCV service market. These included prevention, screening, early treatment, later treatment for advanced liver disease (including liver transplant), and finally end stage liver disease (ESLD). The estimated cost for HCV-related services overall was $47 million (CAD$) per year. Late and ESLD were associated with a cumulative cost of $17.8 million ($8.5 million for late stage and $9.3 million for ESLD). Treatment with antivirals (i.e., early segment) was associated with $15 million in costs. **CONCLUSIONS:** Costs in Alberta will likely increase in the future because of the current lack of integration across HCV service provider segments such as screening and early treatment referral. System capacity limitations for early treatment and liver transplants will also contribute to future increases in cost.

PHS135

COST OF PRIMARY AND SECONDARY HEALTHCARE UTILIZATION FOR PATIENTS WITH IRRITABLE BOWEL SYNDROME CALCULATED USING ROUTINELY COLLECTED ELECTRONIC RECORDS TO ASSESS THE IMPACT OF SECONDARY CARE REFERRAL

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OBJECTIVES: Databases contain large numbers of unselected patients with extensive medical and demographic data spanning many years. Considerable interest exists in using large databases to inform economic modelling. Accurate linkage and costing are essential to optimising their use in economic evaluation. These methods deliver a template to do this. Patients with Irritable bowel syndrome (IBS) can be diagnosed and managed entirely in primary care yet around 30% are referred to gastroenterology. We use routinely collected electronic records to assess how this referral changes total healthcare utilization and its cost. **METHODS:** Within the UK Clinical Practice Research Dataset (CPRD) we identified IBS patients with a first gastroenterology visit identified in linked Hospital Episode Statistics (HES) in 2008/9. Anyone with organic gastrointestinal disease was excluded. All primary care attendances and prescriptions were identified from CPRD and unit costs attached. Hospital inpatient stays, outpatient visits and colonoscopies were identified in HES. Healthcare Resource Grouping (HRG) was done via the UK NHS algorithm and tariff costs applied. Utilization rates and costs (2011/2012 UK £) per person year and ratios before and after gastroenterology visit were calculated and stratified. **RESULTS:** In 2008/9, 4811 IBS patients attended gastroenterology for the first time. Healthcare utilization increased in all domains before the year of referral and decreases after, except prescriptions which continue to increase. Mean total annual cost was £2492 three years before referral and £3352 three years after (£807 and £821 respectively excluding prescription costs). Costs were greatest in older patients, those in lower socioeconomic groups, smokers and those diagnosed with IBS less than a year. **CONCLUSIONS:** Complete primary and secondary healthcare utilization and costs can accurately be calculated at individual and cohort level using routinely collected data from large databases and tariff prices. These data could be used directly in economic modelling from the payer's perspective and to inform policy.

PHS136

UTILIZATION AND PAYMENT OF ERCP-RELATED OPERATIONS AND MEDICAL SUPPLIES IN CHINA BMI INPATIENTS

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OBJECTIVES: To analyze the utilization of ERCP-related operations and medical supplies as well as their expenses and payment in China BMI inpatients, and determine whether the BMI payment policies are appropriate for these inpatients. **METHODS:** This study used the data from the National Sample Survey on Medical Service Utilization of the BMI participants in 2012. Altogether 10,597 inpatients (2.2% of total) treated by ERCP technologies were extracted from the 375 thousands total sample inpatients of all over the country. All the actual claim data of medical expenses and medical care utilization were collected. Descriptive analysis was applied to the data and related BMI payment policies were reviewed. **RESULTS:** 1) About 948 thousands inpatients were treated by ERCP technologies in China BMI participants in 2011, 83% of them suffered from the digestive system diseases. 2) The average hospitalization medical expenses of ERCP inpatients was 11293 RMB (about 1820 USD), among which 45%, 40% and 15% were for drugs, medical services and medical supplies respectively. 3) The 32 ERCP-related operations cost more than 414 million RMB (about 67 million USD), and Top 5 high-cost operations cost 80.4%. 4) The 16 ERCP-related medical supplies cost 194 million RMB (about 31 million USD) and Top 5 cost 58%. The highest price of these medical supplies was more than 7500 RMB (about 1210 USD, i.e. enteral stent). 5) The average reimbursement rate of ERCP inpatients about 68%, 5 percents lower than that of total BMI inpatients. **CONCLUSIONS:** The ERCP technologies were effective new diagnosis and treatment methods used more widely in clinical practice at present. The medical expenses of ERCP-related inpatients were higher, while their BMI reimbursement level was lower, which meant that their economic burden were higher but could get less reimbursement from BMI. The BMI reimbursement policies on the ERCP-related operations and medical supplies should be adjusted to promote these new medical technologies.

PHS138

COLORECTAL CANCER (CRC) COSTS IN THE US: FINDINGS FROM THE MEDICAL EXPENDITURE PANEL SURVEY 2008-2012

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OBJECTIVES: To estimate colorectal cancer (CRC) -attributable cost in the United States by quantifying the direct medical cost of cancer care for CRC patients and to study the effects of CRC on direct healthcare costs. **METHODS:** We used direct medical cost data from the household component of the Medical Expenditure Panel Surveys (MEPS) of 2008 to 2012that gather healthcare utilization and expenditures for the US civilian non-institutionalized population. To estimate CRC-attributable cost, patients reporting a past CRC diagnosis were matched with non-cancer controls on age, region, poverty level, race, insurance status, and marital status. Generalized linear model (GLM) was chosen to model costs. **RESULTS:** An average of 110 persons in each year reported a prior CRC diagnosis.The mean annual direct medical cost attributable to CRC was $18,240 in 2008, $18,211 in 2009, $11,192 in 2010, $11,113 in 2011 and $13,301 in 2012. Applying the findings to SEER estimates of population-wide CRC prevalence, CRC attributable costs were $27.59 billion in 2008, $25.45 billion in 2009, $14.11 billion in 2010, $13.03 billion in 2011 and $15.08 billion in 2012, a trend consistent with the documented overall healthcare cost decline following the 2008-09 recession. **CONCLUSIONS:** Our study revealed a significant decline in annual CRC attributable cost in 2010. Our findings may be confounded by 5-plus year survivors who may no longer qualify as "cancer" patients, and by stage at diagnosis among the study sample. Localized disease is associated with a 90% 5-year survival rate. Study limitations include: a) a lack of consistent data on time since cancer diagnosis which is relevant to cancer care cost computations, and, b) lack of data on stage at diagnosis. With about 130,000 new cases each year, additional research is warranted to develop accurate cost estimates.